WHAT IS CLAIMED IS:

1. A method for synchronizing a source node and a destination node in an ad-hoc network comprising the steps of:

transmitting a message from the source node to the destination node over a route between the source and destination nodes;

receiving the message by each node in the route;

accumulating an offset in the message as the message is forwarded through the route, wherein whether the accumulation is performed by a particular node in the route is based on a relationship between the particular node and either a node from which the message is received, or a node to which the message is to be forwarded by the particular node;

forwarding, by each node in the route, the message to a next node in the route between the source and destination nodes;

determining, by the destination node, an offset with respect to the source node; and

synchronizing the source node and the destination node using the offset determined by the destination node.

2. The method of claim 1, wherein if the source node is a slave with respect to a next node in the route, the source node determines a negative offset between the source node and the next node, and the source node includes the negative offset in the message prior to transmitting the message to the next node in the route.

3. The method of claim 1, wherein clocks in each node in the route are not synchronized such that a clock value of one particular node is independent of a clock value of another node, and wherein a stepping of the clocks of each node is independent of each other.

4. The method of claim 1, wherein the accumulation is performed by a particular node in the route if the particular node is a slave with respect to a node which forwarded the message to the particular node, or if the particular node is a slave with respect to a node to which the particular node is to forward the message.

5. The method of claim 4, wherein an offset value is added to the offset in the message if the particular node is a slave with respect to a node which forwarded the message to the particular node, and another offset value is subtracted from the offset in the message if the particular node is a slave with respect to a node to which the message is to be forwarded by the particular node.

6. The method of claim 1, further comprising the step of:

incrementing, by the particular node, an offset counter in the message, wherein the offset counter is incremented by the particular node only if the particular node is a slave node with respect to either a node which forwarded the message to the particular node, or a node to which the particular node is to forward the message.

7. The method of claim 1, further comprising the step of:

estimating an error of the offset determined by the destination node.

8. The method of claim 1, wherein the synchronizing step comprises the steps of:

exchanging a point in time between the source node and the destination node; and

performing a task by the source node and destination node at the exchanged point in time.

9. The method of claim 8, wherein the task is page scanning, paging, inquiry scanning, inquiring, or transferring a message without prior connection establishment.

10. The method of claim 8, wherein a cycle of clocks in all of the nodes in the route is represented by a predetermined number of bits and offset values which are accumulated in the message are represented by a difference between a subcycle of a clock of a slave node and a subcycle of a clock of a master node.

11. The method of claim 10, wherein the predetermined number of bits is 28 bits which are numbered from 0 to 27 with the least significant bit being bit number 0 and the subcycle is represented using bits 2-16.

12. The method of claim 10, wherein a message in which the point in time is exchanged indicates whether the point in time is more or less than a half of a subcycle in the future at a time of sending the point in time.

13. The method of claim 10, wherein the exchanged point in time is not more than half of a subcycle in the future at a time of sending the point in time.

14. The method of claim 10, wherein the exchanged point in time is a point in time relative to a default subcycle clock value.

15. The method of claim 8, wherein offset values which are accumulated in the message are represented by a difference between a clock of a slave node and a clock of a master node.

16. The method of claim 15, wherein a value of the clocks are represented using 28 bits.

17. The method of claim 15, wherein the offset values which are accumulated in the message are retrieved in each node using a host controller interface in each node.

18. The method of claim 1, wherein the offset values which are accumulated in the message include a clock offset and a frame offset.

19. The method of claim 1, wherein the message includes an indication that each node in the route between the source node and the destination node has to process the message prior to transmitting the message to a next node in the route.

20. The method of claim 19, wherein the indication is included in a network adaptation layer message header.

21. The method of claim 1, wherein an address of the destination node is included in a body of the message.

22. A network comprising:

a source node which generates a message and transmits the message in a route between the source node and a destination node;

at least one intermediate node in the route between the source and destination nodes, wherein an offset is accumulated in the message as the message is transmitted in the route between the source node and destination node, wherein whether accumulation is performed by the at least one intermediate node is based on a relationship between the at least one intermediate node and either a node from which the at least one intermediate node received the message, or a node to which the at least one intermediate node is to forward the message; and

wherein the destination node determines an offset relative to the source node using the offset accumulated in the message and synchronizes with the source node using the offset determined by the destination node.

23. The network of claim 22, wherein if the source node is a slave node with respect to a next node in the route between the source and destination nodes, the source node determines a negative offset between the source node and the next node, and the source node includes the negative offset in the message prior to transmitting the message to the next node in the route.

24. The network of claim 22, wherein clocks of the source node, the destination node and the at least one intermediate node are not synchronized such that a clock value of one particular node is independent of a clock value of another node, and wherein a stepping of the clock of each node is independent of each other.

25. The network of claim 22, wherein the accumulation is performed by the at least one intermediate node if the at least one intermediate node is a slave with respect to a node which forwarded the message to the at least one intermediate node, or if the at least one intermediate node is a slave with respect to a node to which the at least one intermediate node forwards the message.

26. The network of claim 25, wherein an offset value is added to the offset in the message if the at least one intermediate is a slave with respect to a node which forwarded the message to the at least one intermediate node, and another offset value is subtracted from the offset in the message if the at least one intermediate node is a slave with respect to a node to which the message is to be forwarded by the at least one intermediate node.

27. The network of claim 25, wherein the at least one intermediate node increments an offset counter in the message, wherein the offset counter is incremented by the at least one intermediate node only if the particular node is a slave node with respect to either a node which forwarded the message to the at least one intermediate node, or a node to which the at least one intermediate node is to forward the message.

28. The network of claim 22, wherein the destination node estimates an error of the offset determined by the destination node.

29. The network of claim 22, wherein the source node and the destination node exchange a point in time and perform a task at the exchanged point in time.

30. The network of claim 29, wherein the task is page scanning, paging, inquiry scanning, inquiring, or a message transfer without prior connection establishment.

31. The network of claim 29, wherein a cycle of clocks in all of the nodes is represented by a predetermined number of bits and the offsets are represented by a difference between a subcycle of a clock of a slave node and a subcycle of a clock of a master node.

32. The network of claim 31, wherein the predetermined number of bits is 28 bits which are numbered from 0 to 27 with the least significant bit being bit number 0 and the subcycle is represented using bits 2-16.

33. The network of claim 31, wherein a message in which the point in time is exchanged indicates whether the point in time is more or less than a half of a subcycle in the future at a time of sending the point in time.

34. The network of claim 31, wherein the exchanged point in time is not more than half of a subcycle in the future at a time of sending the point in time.

35. The network of claim 31, wherein the exchanged point in time is a point in time relative to a default subcycle clock value.

36. The network of claim 29, wherein the offset values which are accumulated in the message are represented by a difference between a clock of the slave node and a clock of the master node.

37. The network of claim 36, wherein a value of the clocks are represented using 28 bits.

38. The network of claim 36, wherein the offset values which are accumulated in the message are retrieved in each node using a host controller interface in each node.

39. The network of claim 22, wherein offset values which are accumulated in the message include a clock offset and a frame offset.

40. The network of claim 22, wherein the message includes an indication that each node in the route between the source node and the destination node has to process the message prior to transmitting the message to a next node in the route.

41. The network of claim 40, wherein the indication is included in a network adaptation layer message header.

42. The network of claim 22, wherein an address of the destination node is included in a body of the message.